Claims

1. A method of determining a separation matrix for each of a plurality of elevator cars serving a plurality of landings in a building, comprising:

(a) for each hall call in either the up direction or the down direction which is registered at any of the landings, determining (30, 33) the amount of time that it is predicted to take in order for each car to arrive at that landing taking into account the car position, the direction of car travel, the hall calls assigned to the car and the car calls registered in the car;

characterized by:

(b) organizing the times determined in step (a) in a sequence of categories (Fig. 3, Fig. 4) of ranges of time for each car, all but the highest of said categories in said sequences representing a lesser range of time than the category next higher thereto in said sequences, all but the lowest of said categories in said sequences representing a higher range of time than the category next lower thereto in said sequences;

(c) at least some of said categories being provided with corresponding fuzzy set complexes (Figs. 7-10) including at least two sets selected from FEW, SOME, and MANY;

(d) determining, for each of said categories, the membership in said corresponding fuzzy set;

(e) providing a membership combination of the non-zero memberships of all of said fuzzy sets by fuzzy ANDing them together, which comprises multiplying them;

(f) providing a matrix of as many dimensions as there are categories and determining from the non-zero memberships, a relationship value indicated by said matrix; and

(g) multiplying the membership combination value by the corresponding relationship value to determine the separation metric.

2. A method of assigning hall calls to selected ones of a plurality of cars serving a plurality of landings in a building, comprising:

(h) determining a separation matrix for each car according to the method of claim 1; and

(i) combining (Fig. 11) said separation matrix with other dispatching in a two-or-three-dimensional fuzzy set; and

(j) assigning cars to calls in accordance with the result of step (i).